REMARKS

I. Introduction

In response to the Office Action dated January 19, 2010, Applicants have amended claims 1, 6, 7 and 9 in order to overcome the § 112 rejections. Support for the amendment to claim 9 may be found, for example, in paragraph [0045] of the specification. In addition, new claims 12 and 13 were added. Support for new claims 12 and 13 may be found, for example, in paragraphs [0031] and [0034], respectively. Applicants have been careful to avoid the introduction of new matter.

Applicants respectfully submit that all pending claims are patentable over the cited prior art for the reasons set forth below.

II. Priority

The Examiner acknowledged that Applicants have made a claim for foreign priority based on an application filed in Japan on December 28, 2004. However, the Examiner asserted that Applicants have not filed a certified copy of the JP 2004-380634 application as required by 35 U.S.C. § 119(b).

Applicants respectfully point out that as the present application is a 35 U.S.C. § 371 application, then according to guidelines set forth in MPEP 1893.03(c), WIPO should have furnished a copy of the foreign priority document. As such, Applicants respectfully request that the USPTO request this document from WIPO.

III. The Rejection Of Claims 1, 6, 7 and 9 Under 35 U.S.C. § 112

Claims 1, 6, 7 and 9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite and lacking antecedent basis. In response, Applicants have amended the claims in order to overcome the § 112 rejections.

IV. The Rejection Of Claims 1-11 Under 35 U.S.C. § 103

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohara et al. (US 2004/0209148). Applicants respectfully traverse this rejection of the pending claims for at least the following reasons.

With regard to the present disclosure, amended independent claim 1 recites a fuel cell comprising a cooling fluid channel for supplying and exhausting a cooling fluid for cooling a membrane electrode assembly which is formed in at least one of an anode-side separator and a cathode-side separator, a fuel gas channel for supplying and exhausting a fuel gas serving as a reaction gas to the membrane electrode assembly which is formed in the anode-side separator, and an oxidant gas channel for supplying and exhausting an oxidant gas serving as a reaction gas to the membrane electrode assembly which is formed in the cathode-side separator. The cooling fluid channel, the fuel gas channel and the oxidant gas channel are formed such that their main portions are substantially parallel to each other.

It is admitted in the Office Action that Ohara fails to disclose that the cooling fluid channel, the fuel gas channel and the oxidant gas channel are formed such that their main portions are substantially parallel to each other. However, it is asserted that it would have been obvious to rearrange the flow fields to be parallel in order to have inlets and outlets on the same sides, since it is held that rearranging of parts involves only routine skill in the art. The Examiner then states that with a parallel rearrangement, an upstream portion of the cooling fluid channel would correspond to a region of the anode and/or cathode side gaps and a middle stream

portion would correspond with the fuel and oxidant gas channels. Applicants respectfully disagree.

As is shown in Figs. 11, 14 and 15 of Ohara, the oxidant gas channel 53, 63, fuel gas channel 52, 62 and cooling fluid channels 14b, 24b are formed such that the cooling fluid channel is perpendicular to the oxidant gas and fuel gas channels. However, as is clear from Fig. 11, the gap between the anode 2a or cathode 2b and the sealing member 30 or 40 does not correspond to the cooling fluid channel 14b or 24b. As is shown in Figs. 1-4, the outside profile of each channel is square shaped. As such, if either the cooling fluid channel or the fuel/oxidant gas channels is rotated by 90 °, i.e., make the channels parallel to each other, the gap between the anode or cathode and the sealing member will not correspond to the cooling fluid channel. As a result, the fuel cell will not operate. As is well known in patent law, if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon,* 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Accordingly, the proposed modification by the Examiner is improper.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. As is clearly shown, Ohara does not disclose a cooling fluid channel, a fuel gas channel and a oxidant gas channel that are formed such that their main portions are substantially parallel to each other. Accordingly, Applicants submit that Ohara does not render claim 1 of the present disclosure obvious and as such, claim 1 is patentable and allowable over the cited prior art. Accordingly, Applicants respectfully request that the § 103(a) rejections of claim 1 be withdrawn.

V. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

VI. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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